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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,178	06/24/2003	Alfred Tom	45818.00018	1505

30256 7590 02/08/2006

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EXAMINER
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LU, ZHIYU

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/606,178	<b>Applicant(s)</b> TOM, ALFRED	
	<b>Examiner</b> Zhiyu Lu	<b>Art Unit</b> 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1, 5-7 and 38 are objected to because of the following informalities:

On line 2 of claim 1, remove “of” after “at least” to correct grammatical error.

On lines 3 and 5 of claim 1, remove “and” after “;” to correct grammatical error.

On line 2 of claim 5, remove “and” after “;” to correct grammatical error.

On line 2 of claim 6, remove “and” after “;” to correct grammatical error.

On lines 2 and 4 of claim 7, remove “and” after “;” to correct grammatical error.

On line 3 of claim 11, remove “and” after “;” to correct grammatical error.

On line 2 of claim 38, remove “of” after “at least” to correct grammatical error.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is indefinite to the word “typed” in claim 18. For examining purpose, the Examiner is taking its meaning as shown or displayed.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 7, 23-25, 27-28, 31-33 and 35-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Vilppula et al. (U.S. Patent#6961587).

Regarding claim 1, Vilppula et al. anticipate a modular wireless device comprising:

- a) a shell (mobile terminal, 10 of Fig. 1) that contains non-wireless components, at least one of which is system software (column 4 line 65 to column 5 line 8);
- b) a cartridge (SIM card, 24 of Fig. 1) that contains wireless components, at least one of which is call-processing software (column 5 lines 8-13);
- c) a means (28 of Fig. 2) for the shell and cartridge to exchange information (column 5 lines 28-35); and
- d) a means (20 of Fig. 1) for the modular wireless device to configure its operation based on said information (column 5 lines 37-50).

Regarding claim 37, Vilppula et al. anticipate a modular wireless device cartridge comprising:

- a) a cartridge (24 of Fig. 1) that contains wireless components, at least one of which is call-processing software (column 5 lines 8-13) and another which is an interface

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(inherent) configured for removable connection (28 of Fig. 2) to a shell that contains non-wireless components, at least one of which is system software (column 5 lines 5-7); and  
b) a means (20 of Fig. 1) for the cartridge to exchange information with said shell (column 5 lines 28-35) and configure its operation base on said information (column 5 lines 37-50).

Regarding claim 38, Vilppula et al. anticipate a modular wireless device comprising:

- a) a shell (10 of Fig. 1) that contains non-wireless components, at least one of which is system software (column 5 lines 5-7) and another of which is an interface (inherent) configured for connection (28 of Fig. 2) to removable cartridge (24 of Fig. 1) that contains wireless components, at least one of which is call-processing software (column 5 lines 8-13); and
- b) a means (20 of Fig. 1) for shell to exchange information with said cartridge (column 5 lines 28-35) and configure its operation based on said information (column 5 lines 37-50).

Regarding claim 2, Vilppula et al. anticipate the limitation of claim 1.

Vilppula et al. also anticipate the limitation of the cartridge is removably connected to the shell (column 5 lines 8-9).

Regarding claim 3, Vilppula et al. anticipate the limitation of claim 1.

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Vilppula et al. also anticipate the limitation of the shell contains a keypad (18 of Fig. 1), display (12 of Fig. 1), and microprocessor (20 of Fig. 1) and the cartridge contains baseband and RF components (column 5 lines 51-67).

Regarding claim 7, Vilppula et al. anticipate the limitation of claim 1.

Vilppula et al. also anticipate the limitation of the system software includes a software application and an operating system (26 of Fig. 2); and the system software has means for the software application to register with the operating system for a wireless service (column 5 lines 37-50); and the modular wireless service further includes means for the cartridge to communicate wireless service availability to the operating system; and the operating system has means to notify the software application of the availability of a wireless service in the cartridge (inherent), whereby the software application can configure its operation according to the wireless services available in the cartridge (column 6 lines 3-12, column 6 line 44 to column 7 line 43).

Regarding claim 23, Vilppula et al. anticipate the limitation of claim 2.

Vilppula et al. also anticipate the limitation of further including a locking mechanism in the shell that prevents the shell from accessing the wireless services in the cartridge; and a means (PIN code) for unlocking the locking mechanism (column 7 line 64 to column 8 line 13)

Regarding claim 24, Vilppula et al. anticipate the limitation of claim 23.

Vilppula et al. also anticipate the limitation of the means for unlocking the locking mechanism consists of a user entering a pass code into the shell (column 7 line 64 to column 8 line 13).

Regarding claim 25, Vilppula et al. anticipate the limitation of 23.

Vilppula et al. also anticipate the limitation of the means for unlocking the locking mechanism consists of the cartridge communicating a pass code to the shell (column 7 line 64 to column 8 line 13).

Regarding claim 27, Vilppula et al. anticipate the limitation of claim 2.

Vilppula et al. also anticipate the limitation of further including a locking mechanism in the cartridge that disables wireless services in the cartridge; and a means (PIN code) for unlocking the locking mechanism (column 7 line 64 to column 8 line 13)

Regarding claim 28, Vilppula et al. anticipate the limitation of claim 27.

Vilpulla et al. also anticipate the limitation of the means for unlocking the locking mechanism consists of the shell communicating a pass code to the cartridge (column 7 line 64 to column 8 line 13).

Regarding claim 31, Vilppula et al. anticipate the limitation of claim 2.

Vilppula et al. also anticipate the limitation of the modular wireless device contains means for exchanging information related to communication preference values between the shell and cartridge, whereby the cartridge can obtain communication preference values from the user (column 5 lines 28-35, column 7 lines 12-23, column 8 lines 31-38).

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Regarding claim 32, Vilppula et al. anticipate the limitation of claim 31.

Vilppula et al. also anticipate the limitation of the information includes the format of the desired communication preference value whereby the shell can tell the user how to enter a communication preference value (column 8 lines 25-38).

Regarding claim 33, Vilppula et al. anticipate the limitation of claim 32.

Vilppula et al. also anticipate the limitation of the format enables the cartridge to communicate to the shell that the communication preference value is optional (column 7 line 64 to column 8 line 13).

Regarding claim 35, Vilppula et al. anticipate the limitation of claim 31.

Vilppula et al. also anticipate the limitation of the shell has means for communicating a communication preference value to the cartridge once the communications preference value is entered by the user (column 7 lines 12-23, column 8 lines 31-38)

Regarding claim 36, Vilppula et al. anticipate the limitation of claim 1.

Vilppula et al. also anticipate the limitation of the cartridge and shell have means to automatically exchange information when the cartridge is inserted into the shell (column 7 line 64 to column 8 line 13), where requesting PIN code for accessing a SIM card means exchanging information when detecting the SIM card.

Regarding claims 39-40, Vilppula et al. anticipate the limitations of claims 7 and 31.



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Vilppula et al. also anticipate the limitation of the cartridge includes a software-defined radio (column 5 lines 37-50), which means the cartridge contains configurations for different air-interface standards.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilppula et al. (U.S. Patent#6961587) in view of Zhang (US2001/0049263).

Regarding claim 4, Vilppula et al. teach the limitation of claim 2.

But, Vilppula et al. do not expressly disclose the limitation of the cartridge further includes replacement software; and the modular wireless device further includes means for transferring the replacement software to the shell to upgrade, augment, or replace the system software.

Zhang teaches the limitation of the limitation of a smart card (SIM card) includes replacement software; and the mobile station includes means (microcontroller) for transferring the replacement software to the shell to upgrade, augment, or replace the system software (paragraphs 0046-0049).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate SIM card containing upgradeable system software and the means to

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upgrade within the modular wireless device taught by Zhang into the modular wireless device of Vilppula et al., in order upgrade system software for having a more advanced and stable system.

Regarding claim 6, Vilppula et al. and Zhang teach the limitation of claim 4.

Zhang also teaches the limitation of the system software contains a first operator identification (electronic serial number); and the replacement software contains a second operator

identification; and wherein the cartridge and shell exchange the first and second operator

identifications to determine whether the system software should be replaced (paragraph 0051).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate checking identification for upgrade taught by Zhang into the modular wireless device of Vilppula et al., in order to make sure the hardware is compatible with the software upgrade.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilppula et al. (U.S. Patent#6961587) in view of Zhang (US2001/0049263) and Shin et al. (U.S. Patent#6198946).

Regarding claim 5, Vilppula et al. and Zhang teach the limitation of claim 4.

But, Vilppula et al. and Zhang do not expressly disclose the limitation of the system software contains a first version number; and the replacement software contains a second vision number;

and wherein the cartridge and shell have a means to exchange the first and second version numbers to determine whether the system software should be replaced.

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Shin et al. teach the limitation of the system software contains a first version number; and the replacement software contains a second vision number; and wherein the wireless communication device has a means to exchange the first and second version numbers to determine whether the system software should be replaced (column 2 lines 56-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate checking software version numbers for upgrade taught by Shin et al. into the modified modular wireless device of Vilppula et al. and Zhange, in order to make sure the system being upgraded but not degraded.

6. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilppula et al. (U.S. Patent#6961587) in view of Vapaakoski et al. (U.S. Patent#6164547).

Regarding claim 8, Vilppula et al. teach the limitation of claim 7.

But, Vilppula et al. do not expressly disclose the limitation of the operating system maintains a service array that specifies which wireless services it is able to support based on the shell's hardware characteristics.

Vapaakoski et al. teach the limitation of the operating system maintains a service array received from network that specifies compatibility of the service based on the mobile station's hardware characteristics (column 1 line 55 to column 2 line 19), which means the same as checking which wireless service is able to support based on hardware characteristics.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate checking hardware compatibility to service taught by Vapaakoski et al.

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into the modular wireless device of Vilppula et al., in order to make sure service availability to the wireless device.

Regarding claim 9, Vilppula et al. and Vapaakoski et al. teach the limitation of claim 8.

Vilppula et al. also teach the limitation of the operating system has means for expanding the service array to incorporate new wireless services (column 5 lines 23-50).

Regarding claim 10, Vilppula et al. and Vapaakoski et al. the limitation of claim 8.

Vilppula et al. teach the limitation of the shell has means of obtaining the wireless services supported by the cartridge (column 5 lines 23-50).

Vapaakoski et al. teach the shell has means of using the service array to determine which wireless services in the cartridge the shell is able to use (column 1 line 55 to column 2 line 19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate determining service availability based on hardware characteristics taught by Vapaakoski et al. into the modular wireless device of Vilppula et al., in order to make sure service availability to the wireless device.

7. Claims 11-12 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilppula et al. (U.S. Patent#6961587) in view of Laurila (U.S. Patent#6804517).

Regarding claim 11, Vilppula et al. teach the limitation of claim 2.

Vilppula et al. also teach the limitation of the cartridge (24 of Fig. 1) includes a second memory storage bin for storing subscriber information (inherent, SIM abbreviates for Subscriber Identity

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Module); and the modular wireless device further includes means for subscriber information to be exchanged between the shell and cartridge (Fig. 2, column 5 lines 28-35).

But, Vilppula et al. do not expressly disclose the limitation of the shell further includes a first memory storage bin for storing subscriber information.

Laurila teaches the limitation of subscriber information being stored in data memory of a mobile station (column 6 lines 43-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate storing subscriber information in data memory taught by Laurila into the modular wireless device of Vilppula et al., in order for efficient use of user information even without the SIM card.

Regarding claim 12, Vilppula et al. and Laurila teach the limitation of claim 11.

Vilppula et al. also teach the limitation of at least one of the memory bins is a SIM card (column 2 lines 43-45).

Regarding claim 16, Vilppula et al. and Laurila teach the limitation of claim 11.

Laurila also teaches the limitation of the cartridge (540 of Fig. 5) is directly connected to the first memory storage bin (544 of Fig. 5) in the shell (Fig. 5)

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to incorporate direct connection between the cartridge and memory storage bin taught by Laurila into the modular wireless device of Vilppula et al., in order to provide efficient data transfer.

Regarding claim 17, Vilppula et al. and Laurila teach the limitation of claim 11.

Vilppula et al. also teach the limitation of the first memory storage bin in the shell has means to store subscriber information related to more than one air-interface standard (column 5 lines 7-50).

Regarding claim 18, Vilppula et al. and Laurila teach the limitation of claim 17.

Vilppula et al. also teach the limitation of the subscriber information in the first memory storage bin is typed according to the air-interface standard it corresponds to (column 7 lines 24-63).

8. Claims 13-15 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilppula et al. (U.S. Patent#6961587) in view of Laurila (U.S. Patent#6804517) and Tayloe (U.S. Patent#5987325).

Regarding claim 13, Vilppula et al. and Laurila teach the limitation of claim 11.

Vilppula et al. teach the limitation of the information exchanged is used to determine subscriber information (column 8 lines 18-38); and Laurila teaches the limitation of subscriber information remain in data memory even when SIM card is cut off (column 6 lines 43-46).

But, Vilppula et al. and Laurila do not expressly disclose the limitation of information exchanged is used to determine which memory storage bins contains subscriber information.

Tayloe teaches the limitation of exchanging information to check which memory storage bins contains subscriber information (column 4 lines 26-28).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate checking available subscriber information in two memory storage bins taught by Tayloe into the modified modular wireless device of Vilppula et al. and Laurila, so that the device have options in using subscriber information.

Regarding claim 14, Vilppula et al. and Laurila teach the limitation of claim 11.

Vilppula et al. teach the limitation of the information exchanged is used to determine subscriber information (column 8 lines 18-38); and Laurila teaches the limitation of subscriber information remain in data memory even when SIM card is cut off (column 6 lines 43-46).

But, Vilppula et al. and Laurila do not expressly disclose the limitation of information exchanged is used to determine which memory storage bins contains subscriber information.

Tayloe teaches the limitation of exchanging information to check which memory storage bins contains subscriber information (column 4 lines 26-28) and the means to determine which subscriber information to be used when both memory storage bins contains subscriber information (column 4 lines 31-38).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate means to determine which subscriber information to be used in two memory storage bins taught by Tayloe into the modified modular wireless device of Vilppula et al. and Laurila, so that user can use the best network service by default.

Regarding claim 15, Vilppula et al. and Laurila teach the limitation of claim 11.

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But, Vilppula et al. and Laurila do not expressly teach the limitation of further including a means for notifying the user which subscriber information will be used.

However, Vilppula et al. teach the limitation of network notifying mobile terminal selected subscriber information is available for use (column 8 lines 31-43).

Thus, it would have been obvious to one of ordinary skill in the art to modify notifying selected subscriber information in a SIM card into notifying selected subscriber information in memory storage or SIM card for the purpose of notifying user the phone number and service selected for usage.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the modified modular wireless device of Vilppula et al. with the capability to notify the user which subscriber information will be used, in order to provide user notification of phone number and service selected for usage.

Regarding claim 22, Vilppula et al. and Laurila teach the limitation of claim 12.

Vilppula et al. also teach the limitation of the SIM card and memory means include user data (inherent) and the modular wireless device includes means for synchronizing the user data in the SIM card and memory means (column 5 lines 23-50).

But, Vilppula et al. and Laurila do not expressly disclose the limitation of both memory storage bins are SIM cards.

Tayloe teach the limitation of using two SIM cards in one modular wireless device (abstract).

Thus, it would have been obvious to one of ordinary skill in the art to modify the data memory of the modified modular wireless device of Vilppula et al. and Laurila into part of a SIM card, in



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order to provide conveniences to user in the cases of removable storage, security (subscriber information wouldn't be stolen in case of the wireless device is lost), and backup subscriber information if original SIM card is lost.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate having two SIM cards in one wireless device taught by Tayloe into the modular wireless device of Vilppula et al. and Laurila, in order to provide user conveniences of removable data storages.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilppula et al. (U.S. Patent#6961587) in view of Laurila (U.S. Patent#6804517) and Mountain et al. (US2002/0039911).

Regarding claim 19, Vilppula et al. and Laurila teach the limitation of claim 11.

But, Vilppula et al. and Laurila do not expressly disclose the limitation of the cartridge has a means for obtaining the subscriber information in the shell's memory storage bin and communicating the subscriber information to a wireless network.

However, Vilppula et al. also teach the limitation of a SIM card having memory means and processor means (column 1 lines 15-23) and communicating the subscriber information within to a wireless network (column 8 lines 39-43).

Mountain et al. teach the limitation of subscriber information can be received from network (inherently stored in mobile phone's memory storage bin) and transferred to a new (empty) SIM card (paragraph 0011).

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And, it would have been obvious to one of ordinary skill in the art to modify the processor of the new SIM card to be the means to obtain data from mobile phone for the purpose of efficient automatic information backup on an empty SIM card.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate and modify processor means of an empty SIM card to obtain data from a mobile phone taught by Mountain et al. into the modified modular wireless device of Vilppula et al. and Laurila, in order to have efficient automatic subscriber information backup.

10. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilppula et al. (U.S. Patent#6961587) in view of Laurila (U.S. Patent#6804517), Mountain et al. (US2002/0039911) and Suprunov (U.S. Patent#6405030).

Regarding claim 20, Vilppula et al., Laurila, and Mountain et al. teach the limitation of claim 19. But, Vilppula et al., Laurila, and Mountain et al. do not expressly disclose the limitation of the subscriber information contains data a wireless network needs to forward calls from a first phone number to a second phone number.

Suprunov teach the limitation of a SIM card obtained the data a wireless network needs to forward calls (column 4 lines 11-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate call-forwarding data in the SIM card taught by Suprunov into the modified modular wireless device of Vilppula et al., Laurila, and Mountain et al., in order to provide user call-forwarding service.

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Regarding claim 21, Vilppula et al., Laurila, and Mountain et al. teach the limitation of claim 20.

But, Vilppula et al., Laurila, and Mountain et al. do not expressly disclose the limitation of the subscriber information contains data a wireless network needs to forward calls from a first phone number to a second phone number.

Suprunov teach the limitation of a SIM card obtained the data and software that is executable for the wireless network to forward calls (column 4 lines 11-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate call-forwarding data and software in the SIM card taught by Suprunov into the modified modular wireless device of Vilppula et al., Laurila, and Mountain et al., in order to provide user call-forwarding service.

11. Claims 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilppula et al. (U.S. Patent#6961587) in view of Tayloe (U.S. Patent#5987325).

Regarding claims 26 and 30, Vilppula et al. teach the limitations of claims 23 and 27.

But, Vilppula et al. do not expressly teach the limitation of the locking mechanism is automatically activated when the cartridge is removed from the shell.

Tayloe teaches the limitation of the locking mechanism is automatically activated when the cartridge is removed from the shell (column 6 lines 1-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate locking automatically when removing cartridge from the shell taught by Tayloe into the modular wireless device of Vilppula et al., in order to protect subscriber identification from being misused or stolen.

12. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilppula et al. (U.S. Patent#6961587) in view of Cooper (U.S. Patent#6321079).

Regarding claim 29, Vilppula et al. teach the limitation of claim 27.

But, Vilppula et al. do not expressly disclose the limitation of the means for unlocking the locking mechanism consists of a wireless network communicating a pass code to the cartridge. Cooper teaches the limitation of the means for unlocking the locking mechanism consists of a wireless network communicating a pass code to the SIM card (abstract, column 1 line 52 to column 2 line 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate network operator sending pass code to unlock SIM card taught by Cooper into the modular wireless device of Vilppula et al., in order to ensure SIM card content match network service.

13. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilppula et al. (U.S. Patent#6961587) in view of Butler (U.S. Patent#6687836).

Regarding claim 34, Vilppula et al. teach the limitation of claim 32.

But, Vilppula et al. do not expressly disclose the limitation of the format enables the cartridge to communicate to the shell that the communication preference value should be encrypted.

Butler teaches the limitation of encrypting password typed-in on display being a common practice (column 1 lines 58-65).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate encrypting typed-in password taught by Butler into the modular wireless device of Vilppula et al., in order to prevent an onlooker from seeing a user's password.

### ***Conclusion***


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhiyu Lu whose telephone number is (571) 272-2837. The examiner can normally be reached on Weekdays: 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zhiyu Lu  
January 27, 2006

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**LEE NGUYEN**  
**PRIMARY EXAMINER**